

Pending Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Presented): A light-emitting diode, comprising
 - a semiconductor layer structure including a substrate and at least one light-generating layer formed on said substrate and one transparent current-spreading layer deposited on said light-generating layer, the top surface of said current-spreading layer has vertical structuring to improve the decoupling of light,
 - a first electrical contact layer on the back of said substrate, and
 - a second electrical contact layer comprising a lateral structure by means of which substantially uniform coupling of electrical current into said current-spreading layer can be achieved, said lateral structure comprising a central contact surface that is directly deposited on said current-spreading layer.
2. (Previously presented): The light-emitting diode as described in claim 1, characterized in that
 - said second electrical contact layer is a central contact surface and, arranged about said central contact surface, a contact structure that is rotationally symmetrical with respect to the center point of said central contact surface and is composed of relatively narrow contact webs and/or contact points.
3. (Previously presented): The light-emitting diode as described in claim 2, characterized in that
 - the rotational symmetry is a symmetry represented by a whole number.

4. (Previously presented): The light-emitting diode as described in claim 1, characterized in that said second electrical contact layer is realized as continuous.

5. (Previously presented): The light-emitting diode as described in claim 1, characterized in that

- said second electrical contact layer is discontinuous and is interconnected by a layer of transparent, light-conducting material.

6. (Previously presented): The light-emitting diode as described in claim 1, characterized in that said second electrical contact layer is arranged on structured and/or unstructured portions of said current-spreading layer.

7. (Previously Presented): The light-emitting diode as described in claim 1, characterized in that

- the vertical structuring is in the form of n -sided ($n > 3$) pyramids or frusta of pyramids cones or frusta of cones.

8. (Previously presented): A method for fabricating a light-emitting diode as described in claim 1, characterized in that

- a light-generating layer and thereafter a relatively thick and transparent current-spreading layer are deposited on a substrate and the back of said substrate is provided with a first electrical contact layer,

- vertical structuring to improve the decoupling of light is produced in the surface of said current-spreading layer,

- a second electrical contact layer having the desired lateral structure is deposited on the structured top surface of said current-spreading layer.

9. (Previously presented): The method for fabricating a light-emitting diode as described in claim 1, characterized in that

- a light-generating layer and thereafter a relatively thick and transparent current-spreading layer are deposited on a substrate and the back of said substrate is provided with a first electrical contact layer,

- a second electrical contact layer having the desired lateral structure is deposited on the top surface of said current-spreading layer, and

- vertical structuring to improve the decoupling of light is produced in the top surface of said current-spreading layer outside the areas of said second electrical contact layer.

10. (Previously presented): The light emitting diode of claim 2 wherein said central contact surface is a circular contact surface.

11. (Previously presented): The light emitting diode of claim 2 wherein said central contact surface is a square contact surface.

12. (Previously presented): The light emitting diode of claim 3 wherein said rotational symmetry matches the rotational symmetry of the light-emitting diode.

13. (Previously presented): The light emitting diode of claim 7 wherein said n-sided ($n > 3$) pyramids or frusta of pyramids, cones or frusta of cones are regularly arranged.

14. (Previously Presented): A light-emitting diode, comprising

- a semiconductor layer structure including a substrate and at least one light-generating layer formed on said substrate and one transparent current-spreading layer deposited on said light-generating layer, the top surface of said current-spreading layer has vertical structuring to improve the decoupling of light,

- a first electrical contact layer on the back of said substrate, and

- a second electrical contact layer comprising a lateral structure by means of which substantially uniform coupling of electrical current into said current-spreading layer can be achieved,

wherein said lateral structure comprises a central contact structure and a circumferential contact web arranged about the central contact structure, wherein the central contact structure is directly deposited on said current-spreading layer.

15. (Previously Presented): The light-emitting diode as described in claim 1, characterized in that

- the vertical structuring is in the form of cones or frusta of cones.

16. (Previously Presented): The light emitting diode of claim 15 wherein said cones or frusta of cones are regularly arranged.

17. (Previously Presented) The light emitting diode of claim 1 wherein said lateral structure of said contact layer extends over and directly contacts said vertical structuring of said current-spreading layer.

18. (Previously Presented) The light emitting diode of claim 14 wherein said lateral structure of said contact layer extends over and directly contacts said vertical structuring of said current-spreading layer.

19. (Previously Presented) The light-emitting diode of claim 1, wherein the lateral structure is directly deposited on the current-spreading layer.

20. (Previously Presented) The light-emitting diode of claim 14, wherein the central contact structure and the circumferential contact web are directly deposited on the current-spreading layer.

21. (Previously Presented): A light-emitting diode, comprising

- a semiconductor layer structure including a substrate and at least one light-generating layer formed on said substrate and one transparent current-spreading layer deposited on said light-generating layer, the top surface of said current-spreading layer has vertical structuring to improve the decoupling of light,
- a first electrical contact layer on the back of said substrate, and
- a second electrical contact layer comprising a lateral structure by means of which substantially uniform coupling of electrical current into said current-spreading layer can be achieved, wherein said substantially uniform coupling includes coupling of electrical current through the middle of the current spreading layer.

22. (Previously Presented): A light-emitting diode, comprising

- a semiconductor layer structure including a substrate and at least one light-generating layer formed on said substrate and one transparent current-spreading layer deposited on said light-generating layer, the top surface of said current-spreading layer has vertical structuring to improve the decoupling of light,
- a first electrical contact layer on the back of said substrate,
- a second electrical contact layer comprising a lateral structure by means of which substantially uniform coupling of electrical current into said current-spreading layer can be achieved, wherein the second electrical contact layer comprises discontinuous portions, and
- a layer of transparent, light-conducting material deposited on the second electrical contact layer to interconnect the discontinuous portions of the second electrical contact layer.

23. (Previously Presented) The light-emitting diode of claim 22, wherein the transparent, light-conducting material comprises indium tin oxide.

24. (Previously Presented) The light-emitting diode of claim 22, wherein the lateral structure is directly deposited on the current spreading layer.